

REMARKS

Claims 1-13, 15-27, and 29-38 were presented for examination in the present application. Claims 18 and 19 are cancelled. Claims 1-13, 15-17, 20-27, and 29-38 are presented for examination in the present application.

Claims 1-13, 15-27, and 29-38 were rejected under 35 U.S.C. §103 over any one of U.S. Patent Nos. 4,790,574 to Wagner et al. (Wagner), 3,944,265 to Hiemstra et al., 5,131,698 to Calmettes (Calmettes) 5,383,496 to Bridges (Bridges), 4,049,298 to Foti (Foti) and 5,362,107 to Bridges (Bridges '107) in view of Brandram. Claims 18 and 19 are cancelled rendering the rejections thereto moot.

Claims 1 and 34 both recite, in part, that the sliding crosspiece has a thickness of 0.2 mm to 0.3 mm and is made of a high-strength material.

The Action asserts Bridges discloses the sliding crosspiece having a thickness of 0.2mm to 0.3mm. However, the Action concedes that neither Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges '107 disclose or suggest a gap being saddled by a sliding cross piece. Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges '107 fail to disclose or suggest a gap being saddled by a sliding cross piece, let alone that the sliding crosspiece has a thickness of 0.2 mm to 0.3 mm and is made of a high-strength material, as recited by claims 1 and 34.

Brandram merely provides "plate d [is] preferably formed of mild steel." (page 2, lines 92-93). Thus, Brandram fails to disclose or suggest that the sliding crosspiece has a thickness of 0.2 mm to 0.3 mm and is made of a high-strength material, as recited by claims 1 and 34.

Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges '107, and Brandram, alone or in combination, fail to disclose or suggest a gap being saddled by a sliding cross piece, let alone that the sliding crosspiece has a thickness of 0.2 mm to 0.3 mm

and is made of a high-strength material, as recited by claims 1 and 34.

Applicants respectfully submit that there is no motivation to combine any of the primary references with Brandram.

As discussed above, the Office Action acknowledges that none of the primary references (i.e., Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges '107) disclose or suggest a gap being saddled by a sliding cross piece. Rather, the Office Action asserts that it would be obvious to combine each of these primary references with the sliding cross piece of Brandram.

The Office Action asserts that the motivation to combine the primary references with Brandram is to provide a tight joint under high pressures. However, each of the primary references already provides for ways to prevent leaks without the need for the sliding cross piece of Brandram.

For example, Wagner and Hiemstra deform the band clamp onto the pipes to prevent leaks. Calmettes discloses a complementary sealing member that eliminates residual leaks. Bridges and Bridges '107 discloses a complex system requiring a pair of arcuate gaskets and a sealing plate having a pair of sealing pads and a circumferential sealing material, while Foti discloses a strip of sealant over the gap.

A reference that teaches away from the claimed invention is a significant factor to be considered in determining obviousness. MPEP 2145.D.1; see *In re Gurley*, 31 USPQ2d 1130 (Fed. Cir. 1994).

Since each of these primary references already provides for a system that prevents leaks, it is submitted that each reference teaches away from the proposed modification to include the sliding cross piece of Brandram to prevent non-existent leaks. There is simply no motivation for one skilled in the art to look for additional ways to modify these references to prevent leaks.

Furthermore, Applicants respectfully submit that there is no motivation to combine Wagner or Hiemstra with Brandram.

Wegner discloses a clamp 70 arrangement that seals about tubes 96 by providing a relatively thin band 72 that fully conforms to tubes 96, leaving no bulges or indentations. See col. 6, lines 64-66. Thus, Wegner discloses conforming the band itself about the tubes.

Similarly, Hiemstra discloses a method and apparatus for joining two tubular members in a strong, leak-proof fashion in which a band of ductile metal is passed around the adjacent ends of the members and circumferentially stressed beyond its elastic limit to conform intimately with the outer surfaces of the members throughout practically their entire circumstances.

Brandram discloses a bridge piece or plate of metal coated with bitumen. Pressure exerted by the band forces the bitumen into the surfaces of the pipes so that perfect cohesion between the pipes and bitumen is obtained. See page 2, lines 1-30. Thus, Brandram discloses using a bridge plate coated with sealing material to seal about the tubes.

It is respectfully submitted that insertion of the bridge plate of Brandram would defeat the purpose of Wegner and Hiemstra. Specifically, it is submitted that insertion of a bridge plate into the device of Wegner would cause the thin band to bulge about the bridge plate, defeating the purpose of Wegner, which fully conforms to the tubes. Additionally, insertion a bridge plate into the device of Hiemstra would cause the band of ductile metal to conform about the bridge plate, defeating the purpose of Hiemstra, which conforms intimately with the outer surfaces of the members.

Accordingly, it is submitted that combining Hiemstra or Wegner with Brandram would defeat the purpose of Hiemstra and Wegner.

For at least the reasons set forth above, it is respectfully submitted that there is simply no motivation to combine any of the primary references with Brandram to result in the combinations of claims 1 and 34.

Thus, claims 1 and 34 are patentable over Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges '107, and Brandram, alone or in combination.

Claims 2 through 13, 15 through 17, 20 through 27, and 29 through 33 depend from claim 1, and, thus, are also patentable over Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges '107, and Brandram, alone or in combination.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 35 recites, in part, a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band.

The Action concedes that neither Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges '107 disclose or suggest a gap being saddled by a sliding cross piece. Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges '107 fail to disclose or suggest a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band, as recited by claim 35.

Brandram merely provides that heated bitumen is poured on top of the pipes and while the bitumen is soft the plate d is laid thereon and pressed down and a further quantity of bitumen may be poured over it. (page 2, line 111 – page 3, line 3). Thus, Brandram fails to disclose or suggest a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band, as recited by claim 35.

Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges '107, and Brandram,

alone or in combination, fail to disclose or suggest a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band, as recited by claim 35.

Furthermore, as discussed above, there is simply no motivation to combine any of the primary references with Brandram.

Thus, claim 35 is patentable over Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges '107, and Brandram, alone or in combination.

Claims 36 through 38 depend from claim 35, and, thus, are also patentable over Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges '107, and Brandram, alone or in combination.

Reconsideration and withdrawal of the rejection are respectfully requested.

In addition, dependent claim 36 provides the clamp of claim 35, and further includes that the seal comprises a labyrinth seal arrangement.

As discussed above, the Action concedes that neither Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges '107 disclose or suggest a gap being saddled by a sliding cross piece. Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges '107 fail to disclose or suggest a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band, as recited by claim 35, let alone, the means for preventing leakage being constructed as a labyrinth seal, as recited by claim 36.

Furthermore, the Action asserts that Bridges '107 discloses the means for preventing leakage being constructed as a labyrinth seal. Applicants respectfully disagree. Bridges '107 provides that "[t]he purpose of the extensions 37 is to provide a better engagement between the axial ridge 36a and the arcuate gaskets positioned in

the guide channels 34” and that “[t]he top surface 41 of second sealing pad 40 is attached to the inner surface of the cylinder along the second axial edge 57a by a process of vulcanization.” In contrast to a seal that comprises a labyrinth seal arrangement, as recited by claim 36.

As discussed above, Brandram merely provides that heated bitumen is poured on top of the pipes and while the bitumen is soft the plate d is laid thereon and pressed down and a further quantity of bitumen may be poured over it. (page 2, line 111 – page 3, line 3). Thus, Brandram fails to disclose or suggest a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band, as recited by claim 35, let alone, the means for preventing leakage being constructed as a labyrinth seal, as recited by claim 36.

Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges ‘107, and Brandram, alone or in combination, fail to disclose or suggest all of the features of claim 36.

Additionally, dependent claim 37 provides the clamp of claim 35, and further includes that the seal comprises a bead seal.

As discussed above, the Action concedes that neither Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges ‘107 disclose or suggest a gap being saddled by a sliding cross piece. Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti or Bridges ‘107 fail to disclose or suggest a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band, as recited by claim 35, let alone, that the seal comprises a bead seal, as recited by claim 37.

Moreover, the Action asserts that Hiemstra et al. in view of Brandram disclose the claimed invention except for the sealing element having a round cross section and it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the sealing element with a round cross section, since a change in

the shape of a prior art device is a design consideration within the skill of the art. Applicants respectfully disagree. Hiemstra merely provides "a strip 37 of compressible packing material is inserted in the gap between ribs 27, under U-bolt 32" and that "tightening of the nuts compresses packing 37 until a final condition such as that shown in FIGS. 4 and 6 is reached." (col. 3, lines 15-17 and 43-45). As clearly shown in Figures 5 and 6, packaging 37 is between ribs 27 and band 21 is free of impressions.

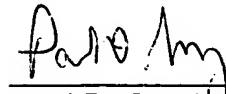
As discussed above, Brandram merely provides heated bitumen is poured on top of the pipes and while the bitumen is soft the plate d is laid thereon and pressed down and a further quantity of bitumen may be poured over it. (page 2, line 111 – page 3, line 3). Furthermore, as clearly shown in Figures 2 and 3, the flat metal band of Brandram is free of impressions.

Thus, Wagner, Hiemstra, Calmettes, Bridges, Foti, Bridges '107, and Brandram, alone or in combination, fail to disclose or suggest a seal arrangement positioned between the edges of the sliding crosspiece and an edge of an associated impression in the clamping band, as recited by claim 35, let alone, that the seal comprises a bead seal, as recited by claim 37.

It is respectfully submitted that the present application is in condition for allowance. Such action is solicited. If for any reason the Examiner feels that consultation with Applicants' attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below.

Respectfully submitted,

August 10, 2006



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